



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,716	06/04/2001	Julie Ann Valentine	35010/127	4953

32827 7590 08/14/2002

PATENTS
FAEGRE & BENSON LLP
1900 FIFTEENTH STREET
BOULDER, CO 80302

EXAMINER

DICKENS, CHARLENE

ART UNIT PAPER NUMBER

2855

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/873,716

Applicant(s)

Valentine

Examiner

Dickens

Group Art Unit

2855

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 5/20/02

☒ This action is **FINAL**.

- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-19 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-19 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☒ The proposed drawing correction, filed on 5/20/02 is ☒ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other _____

Office Action Summary

✓
1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 5/20/02 have been approved by the Examiner. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suggitt et al. in view of Gaisford.

Suggitt et al. disclose a mass flowmeter system for use in controlling a reformation reaction in a hydrogen production system (Figs. 1,2), said mass flowmeter system comprising: a hydrocarbon feedstock supply 12; a steam supply 20; a first flowmeter 38; a second flowmeter 38; and a controller 36, the controller having program instructions; wherein said mass flowmeter is a Coriolis mass flowmeter; wherein said program instructions include instructions for adjusting a ratio of said steam mass flow rate to said hydrocarbon mass flow rate, the

hydrocarbon feedstock having a plurality of hydrocarbon fractions; wherein the program instructions include instructions for using said ratio as a constant; and wherein the program instructions include instructions for determining said ratio from a correlation based upon a measured physical parameter of said hydrocarbon feedstock (col. 11, lines 30-67, col. 12, lines 1-5). Suggitt et al. do not disclose the meters are Coriolis flowmeters. Gaisford discloses Coriolis flowmeters can be used in a hydrogen production system (col. 8, lines 23, 24) for the purpose of measuring the density of a mixture. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have Coriolis flowmeters in Suggitt et al. as taught by Gaisford for the purpose of measuring the density of a mixture. The steps in the claimed method of claims 10-19 are deemed to be made clearly obvious by the functions of the structure of the combination discussed above.

4. Applicant's arguments filed 5/20/02 have been fully considered but they are not persuasive. Applicant argues neither Suggitt nor Gaisford teach processing a hydrocarbon mass flow rate to determine an estimated carbon content of the hydrocarbon feedstock or controlling flow rates based on a ratio of carbon content and steam. The Examiner disagrees with this assertion. First of all, Suggitt discloses determining the hydrogen content, i.e., density, of the hydrocarbon mixture. If total density of

the hydrocarbon mixture along with the hydrogen density is known, then one skilled in the art would find it obvious on how to calculate the amount of carbon in the mixture. Next, the Suggitt does suggest how to control flow rates based on a ratio of carbon content and steam (col. 11). Accordingly, the modified Suggitt clearly teaches and suggests the applicant's claimed invention. All arguments presented are deemed not to be persuasive.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner


Application/Control Number: 09/873,715
Art Unit: 2855

Page 5

Dickens whose telephone number is (703) 305-7047. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist or the customer service representative whose telephone numbers are (703) 308-0956 or (703) 308-4800 respectively. The fax numbers are (703) 305-3431 and (703) 305-3432.



cd dickens
August 9, 2002



Benjamin R. Fuller
Supervisory Patent Examiner
Technology Center 2800